

REMARKS

This Amendment is being filed concurrently with a Petition for Revival of an Application for Patent Abandoned Unintentionally and a Request for Continued Examination (RCE). The Final Office Action mailed October 12, 2006, has been received and reviewed. Claims 1 through 30 are currently pending in the application. Claims 1 through 30 stand rejected. Applicant has amended claims 1 through 30 herein.

The amendments to claim 1 are supported at least at paragraphs [0006], [0007], [0009] through [0011], [0013], and [0017] through [0020] of the published application. The amendments to claim 16 are supported by the published application at least at paragraphs [0006], [0007], [0009], [0010], [0012], and [0017] through [0020]. Each of claims 2 through 15 and 17 through 30 have been amended to improve clarity and maintain antecedent basis in light of the amendments to independent claim 1 and independent claim 6.

Applicant respectfully requests reconsideration of the application as amended herein since the amendments are supported by the as-filed specification, claims, and drawings. No new matter has been added.

35 U.S.C. § 112 Claim Rejections

Claims 1 through 30 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement for allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In addition, claims 1 through 30 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner has asserted that the limitation of a “non-pressurized mold” in each of claims 1 and 16 is indefinite because it is unclear exactly what pressure levels or readings is encompassed by non-pressurized. Office Action of October 12, 2006, p. 3.

In order to advance prosecution, Applicant has amended claims 1 and 16. Claim 1 recites a screed mold method for making gelatinous elastomer gel cushioning articles including “attaching side rails around a perimeter of an open face screed mold, the screed mold including a plurality of crisscrossing slots in a rigid body forming a honeycomb shape defining a mold core.” Claim 16, as amended, recites a screed mold method for making gelatinous elastomer gel cushioning articles including “providing an open face screed mold having a structural shape in a rigid body in which gel may be formed to take on a desired geometric structure, the structural shape including crisscrossing slots in the rigid body.” The amendments to independent claims 1 and 16 are found in the as-filed specification at least at paragraphs [0007]-[0009]. These amendments to claims 1 and 16 are made in an effort to clarify the scope of claims 1 and 16, and do not surrender any scope of the claims as originally filed.

In view of the above, Applicant asserts that claims 1 through 30, as currently amended, comply with the written description requirement and respectfully request that the Examiner withdraw the rejection of claims 1 through 30 under 35 U.S.C. § 112, first paragraph and 35 U.S.C. § 112, second paragraph.

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness Rejection Based on U.S. Patent No. 6,286,448 to Sahr et al. in Combination with U.S. Patent No. 6,280,178 to Khan

Claims 1 through 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sahr et al. (U.S. Patent No. 6,286,448) in combination with Khan (U.S. Patent No. 6,280,178). Applicant respectfully traverses this rejection, as hereinafter set forth.

To establish a *prima facie* case of obviousness the prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 985 (CCPA 1974); *see also* MPEP § 2143.03. Additionally, the Examiner must determine whether there is “an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1740-1741, 167 L.Ed.2d 705, 75 USLW 4289, 82 U.S.P.Q.2d 1385 (2007). Further, rejections on obviousness grounds “cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with

some rational underpinning to support the legal conclusion of obviousness.” *Id.* at 1741, quoting *In re Kahn*, 441, F.3d 977, 988 (Fed. Cir. 2006). Finally, to establish a *prima facie* case of obviousness there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). Furthermore, the reason that would have prompted the combination and the reasonable expectation of success must be found in the prior art, common knowledge, or the nature of the problem itself, and not based on the Applicant’s disclosure. *DyStar Textilfarben GmbH & Co. Deutschland KG v. C. H. Patrick Co.*, 464 F.3d 1356, 1367 (Fed. Cir. 2006); MPEP § 2144. Underlying the obvious determination is the fact that statutorily prohibited hindsight cannot be used. *KSR*, 127 S.Ct. at 1742; *DyStar*, 464 F.3d at 1367.

1. Independent claim 1 and Dependent claims 2 through 15

Applicant asserts that independent claim 1 is not obvious because Sahr and Kahn, when combined and considered together as a whole, do not teach or suggest all of the claimed limitations. Specifically, Sahr and Khan do not teach or suggest a method for making cushioning articles including, *inter alia*, “attaching side rails around a perimeter of an open face screed mold, ***the screed mold including a plurality of crisscrossing slots in a rigid body forming a honeycomb shape and defining at least one mold core***” as recited in amended independent claim 1, and this difference between claim 1 and the prior art references would not have been obvious to one of ordinary skill in the art at the time the present invention was made.

Although Sahr teaches an open face mold, nothing in Sahr teaches or suggests that the mold has a plurality of crisscrossing slots forming a honeycomb shape and defining at least one mold core. Khan does not satisfy the deficiencies of Sahr in this regard. Instead, Khan teaches a lower mold press unit 14 including a lower mold part 50 of a “generally flat rectangular configuration.” *Khan*, col. 7, lines 37-50. Khan teaches that the lower mold part 50 may at its upper surface have a recessed mold cavity 52 for defining a product profile. *Id.* However, Khan does not teach or suggest a mold having a plurality of crisscrossing slots forming a honeycomb shape and defining at least one mold core.

It is asserted in the outstanding Office action that the honeycomb shape would have been obvious to one of ordinary skill in the art at the time of the invention “in order to prepare a mold

having a desired structure.” Office Action of October 10, 2006, p. 4. Applicant notes that, if one were to adopt the Examiner’s apparent interpretation, *any* shape of open face mold would be obvious. Applicant respectfully disagrees. Applicant submits that this assertion is conclusory and is not sufficient to establish a *prima facie* case of obviousness. Applicant notes that “rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” See M.P.E.P. §2141(III). The Examiner has provided no articulated reasoning to support the assertion that a honeycomb shape would have been obvious.

In addition, neither Sahr nor Khan, separately or in combination, teach or suggest a method for making cushioning articles including, *inter alia*, “***providing a separate injection head, having a plurality of distribution channels therein through which thermoplastic material may flow and including at least one heating element within it for heating thermoplastic material, positioning the injection head adjacent the screed mold so that a thermoplastic material may flow from the distribution channels into at least one of the screed mold slots***” as recited in amended independent claim 1, and this difference between claim 1 and the prior art references would not have been obvious to one of ordinary skill in the art at the time the present invention was made. As acknowledged by the Examiner, Sahr does not teach or suggest an injection head having a plurality of distribution channels therein. See, Office Action of April, 28, 2006, p.4. Therefore, Sahr necessarily fails to teach or suggest “providing a separate injection head...including at least one heating element” and “positioning the injection head... adjacent the screed mold.” Khan does not satisfy the deficiencies of Sahr in this regard.

Khan teaches a longitudinally extending distribution channel 92 and sets of transfer grooves 94 defined in each of the respective upper and lower mold parts 50, 68 for routing flow of liquid molding material to the mold cavity 52. Khan, col. 9, lines 22-36. Nevertheless, Applicant asserts that Khan does not teach or suggest “providing a separate injection head, the injection head having a plurality of distribution channels therein through which thermoplastic material may flow” because the distribution channel 92 and transfer grooves 94 disclosed in Khan are *part of and “defined in”* the mold, rather than, in a separate injection head as would be required to meet the claimed limitation. Further, nothing in Khan teaches or suggests a separate

injection head having plurality of distribution channels and *“including at least one heating element within it for heating thermoplastic material.”* Moreover, since Khan does not teach or suggest a separate injection head, Khan necessarily fails to teach or suggest “positioning the injection head adjacent the screed mold so that thermoplastic material may flow from the distribution channels into at least one of the screed mold slots.”

Additionally, Sahr and Khan, when combined and considered together as a whole, do not teach or suggest a method for making cushioning articles including, *inter alia*, ***“utilizing a pumping source to introduce thermoplastic material into the injection head, and using the distribution channels of the injection head to deliver thermoplastic material into at least one of the slots in the screed mold”*** as recited in claim 1, as currently amended, and this difference between claim 1 and the prior art references would not have been obvious to one of ordinary skill in the art at the time the present invention was made. As discussed hereinabove, Sahr and Khan do not teach or suggest a mold having a plurality of crisscrossing slots in a rigid body forming a honeycomb shape and defining at least one mold core. Consequently, Sahr and Khan necessarily fail to teach or suggest delivering thermoplastic material *“into at least one of the slots in the screed mold”* using the plurality of distribution channels of the injection head.

Further, Sahr and Khan, when combined and considered together as a whole, do not teach or suggest method for making cushioning articles including, *inter alia*, ***“displacing the mold and the injection head relative to each other causing the thermoplastic material to be level”*** as recited in the current amendments to independent claim 1, and this difference between claim 1 and the prior art references would not have been obvious to one of ordinary skill in the art at the time the present invention was made. Sahr does not teach or suggest an injection head and therefore does not teach or suggest displacing the mold relative to the injection head. *See*, Office Action of April, 28, 2006, p.4. Khan does not satisfy the deficiencies of Sahr in this regard. Khan teaches a longitudinally extending distribution channel 92 and sets of transfer grooves 94 defined in each of the respective upper and lower mold parts 50, 68. However, Khan does not teach or suggest a separate injection head having a plurality of distribution channels therein. Since Khan teaches distribution channels *within* the mold, but does not teach or suggest *a separate injection head*, Applicant asserts that Khan necessarily does not teach or suggest

displacing the mold relative to the injection head. Moreover, nothing in Sahr or Khan teaches or suggests the limitation of “causing the thermoplastic material to be level.”

At least for the reasons set forth above, Applicant asserts that amended independent claim 1 would not have been obvious to a person of ordinary skill in the art at the time the invention was made considering Sahr in view of Khan, and requests that the Examiner enter the current amendments to claim 1 and withdraw the rejection of independent claim 1 under 35 U.S.C. § 103(a).

Furthermore, the nonobviousness of independent claim 1 precludes a rejection of claims 2 through 15, which depend therefrom, because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, Applicant requests that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to claims 2 through 15, in addition to the rejection to independent claim 1.

2. Independent claim 16 and Dependent claims 17 through 30

Applicant asserts that Sahr and Khan do not teach or suggest a method for making cushioning articles including, *inter alia*, “***providing an open face screed mold having a structural shape in a rigid body in which gel may be formed to take on a desired geometric structure, the structural shape including crisscrossing slots in the rigid body***” as recited in amended independent claim 16, and this difference between claim 16 and the prior art references would not have been obvious to one of ordinary skill in the art at the time the present invention was made. Sahr teaches providing an insert having a top piece and a bottom piece that cooperate to define a foam chamber. *Sahr*, col. 1, lines 54-58. Sahr teaches that the top piece may be manufactured using an open face molding process. *Sahr*, col. 3, lines 30-33. Nevertheless, Applicant asserts that Sahr does not teach or suggest providing an open face mold, having a desired geometric structure defined by a rigid body including crisscrossing slots. Instead, it appears that the molds disclosed in Sahr have a generally solid uniform surface. *See*, Sahr, FIG. 3. Khan does not satisfy the deficiencies of Sahr in this regard.

Specifically, Applicant asserts that Khan does not teach or suggest providing an *open face* mold. Instead, Khan discloses a process for molding wherein an upper mold part 68 having a product defining cavity 52B and a lower mold part 50 having a corresponding product defining cavity 52A are *mated together* and liquid molding material may be provided within the cavity 52. *Khan*, col. 9, lines 5-35. Thus, Khan does not teach or suggest an “open face mold” as the term would be understood by a person of ordinary skill in the art. Furthermore, Khan does not teach or suggest “providing an open face mold...defined by a rigid body *including crisscrossing slots in the rigid body*.” Rather, at best, Khan discloses providing a mold having a recessed cavity 52. *Khan*, col. 7, lines 48-51.

Additionally, Sahr and Khan do not teach or suggest a method for making cushioning articles including, *inter alia*, “**utilizing a pumping source to deposit thermoplastic material into the injection head, and distributing the thermoplastic material through the distribution channels of the injection head, out of at least one exit port of the injection head, into at least one of the slots in the screed mold,**” as recited in amended independent claim 16, and this difference between claim 16 and the prior art references would not have been obvious to one of ordinary skill in the art at the time the present invention was made. Sahr does not teach or suggest an injection head and, therefore, does not teach or suggest distributing the thermoplastic material through the distribution channels of the injection head, out of at least one exit port of the injection head, into at least one of the slots in the screed mold. *See*, Office Action of April 28, 2006, p.4. Khan does not satisfy the deficiencies of Sahr in this regard. In particular, Khan does not teach or suggest providing a mold including slots, Khan necessarily does not teach or suggest “distributing the thermoplastic material, out of at least one exit port of the injection head, *into at least one of the slots in the screed mold.*”

Further, Sahr and Khan do not teach or suggest a method for making cushioning articles including, *inter alia*, “**causing the screed mold and the injection head to move relative to each other as the thermoplastic material is deposited into the slots**” as recited in amended independent claim 16, and this difference between claim 16 and the prior art references would not have been obvious to one of ordinary skill in the art at the time the present invention was made. Sahr does not teach or suggest an injection head, and as a result does not teach or suggest

causing the mold and the injection head to move relative to each other. *See*, Office Action of April, 28, 2006, p.4. Khan does not satisfy the deficiencies of Sahr in this regard.

Khan teaches a longitudinally extending distribution channel 92 and sets of transfer grooves 94 *defined in* each of the respective upper and lower mold parts 50, 68 for routing flow of liquid material to the cavity. *Khan*, col. 9, lines 22-36. As such, the distribution channel *is part of* the mold rather than in an injection head. Therefore, Applicant asserts that Khan necessarily does not describe causing the mold and the injection head to move relative to each other. Moreover, as discussed hereinabove, Khan does not teach or suggest a mold including a pattern of intersecting slots and, consequently, does not teach or suggest causing the mold and the injection head to move relative to each other as the thermoplastic material is deposited *into the slots* in the mold.

At least for the reasons set forth above, Applicant asserts that amended independent claim 16 would not have been obvious to a person of ordinary skill in the art at the time the invention was made considering Sahr in view of Khan, and requests that the Examiner enter the current amendments to claim 16 and withdraw the rejection of independent claim 1 under 35 U.S.C. § 103(a).

Furthermore, the nonobviousness of independent claim 16 precludes a rejection of claims 17 through 30, which depend therefrom, because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, Applicant requests that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to claims 17 through 30, in addition to the rejection to independent claim 16.

Obviousness Rejection Based on U.S. Patent Application Publication No. 2004/0155385 A1 (now U.S. Patent No. 6,869,561) to Johnson et al. in Combination with U.S. Patent No. 6,280,178 to Khan

Claims 1 through 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Johnson et al. (now U.S. Patent No. 6,869,561) in combination with Khan (U.S. Patent No. 6,280,178). Applicant respectfully traverses this rejection, as hereinafter set forth.

1. Independent claim 1 and Dependent claims 2 through 15

Regarding amended independent claim 1, Johnson and Khan, when combined and considered together as a whole, do not teach or suggest all of the claimed limitations. In particular, Johnson and Khan do not teach or suggest a method for making cushioning articles, including, *inter alia*, “attaching side rails around a perimeter of an open face screed mold, the **screed mold including a plurality of crisscrossing slots in a rigid body forming a honeycomb shape defining at least one mold core**” as recited in amended independent claim 1, and this difference between claim 1 and the prior art references would not have been obvious to one of ordinary skill in the art at the time the present invention was made.

Johnson teaches a method of transferring resin into reinforcing material. *Johnson*, col. 3, lines 15-18. The method includes optionally applying a gel coat 200 to the surface 218 of an open face mold and subsequently loading additional materials, such as reinforcing materials, into the mold. *Johnson*, col. 5, lines 24-28. The reinforcing material 202 may be formed from reinforcing honeycombs or webs. *Johnson*, col. 5, lines 35-38. Nevertheless, Johnson does not teach or suggest the claimed method, because in Johnson it is the reinforcing material 202 rather than **the mold 204** which has a honeycomb shape. For substantially the same reasons as discussed above with respect to claim 1, Khan does not satisfy the deficiencies of Johnson in this regard.

Furthermore, Johnson and Khan do not teach or suggest a method for making cushioning articles including, *inter alia*, “**providing a separate injection head, having a plurality of distribution channels therein through which a thermoplastic material may flow, positioning the injection head adjacent the screed mold so that a thermoplastic material may flow from the distribution channels into at least one of the screed mold slots**” as recited in amended independent claim 1, and this difference between claim 1 and the prior art references would not have been obvious to one of ordinary skill in the art at the time the present invention was made.

Johnson teaches that the mold 204 may have one or more ports 208 for connection to a resin source 210. *Johnson*, col. 6, lines 13-27. However, Applicant asserts that Johnson does not teach or suggest providing a *separate* injection head having a plurality of distribution channels

therein and *including at least one heating element*, and positioning the injection head adjacent the mold. Rather, in Johnson it appears that the ports are *within* the mold, rather than in a separate injection head, as would be required to correspond to and meet the claimed limitation. In addition, nothing in Johnson teaches or suggests “a separate injection head ...including at least one heating element.” For substantially the same reasons as discussed above with respect to claim 1, Khan does not satisfy the deficiencies of Johnson in this regard. Instead, Khan teaches distribution channels *within* the mold.

In addition, Johnson and Khan do not teach or suggest a method for making cushioning articles including, *inter alia*, “***displacing the mold relative and the injection head relative to each other causing the thermoplastic material to be level***” as recited in amended independent claim 1, and this difference between claim 1 and the prior art references would not have been obvious to one of ordinary skill in the art at the time the present invention was made. As discussed hereinabove, neither Johnson nor Khan, separately or in combination, teach or suggest a separate injection head and therefore, necessarily do not teach or suggest displacing the mold relative to the injection head. Further, nothing in the art of record teaches or suggests “*causing the thermoplastic material to be level.*”

At least for the reasons set forth above, Applicant asserts that amended independent claim 1 would not have been obvious to a person of ordinary skill in the art at the time the invention was made considering Johnson in view of Khan, and requests that the Examiner enter the current amendments to claim 1 and withdraw the rejection of independent claim 1 under 35 U.S.C. § 103(a).

Furthermore, the nonobviousness of independent claim 1 precludes a rejection of claims 2 through 15, which depend therefrom, because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, Applicant requests that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to claims 2 through 15, in addition to the rejection to independent claim 1.

2. Independent claim 16 and Dependent claims 17 through 30

With respect to independent claim 16, Johnson and Khan, when combined and considered together as a whole, do not teach or suggest all of the claimed limitations. Specifically, Johnson does not teach or suggest a method for making cushioning articles including, *inter alia*, “**providing an open face screed mold having a structural shape in a rigid body in which gel may be formed to take on a desired geometric structure, the structural shape including crisscrossing slots in the rigid body**” as recited in amended independent claim 16, and this difference between claim 16 and the prior art references would not have been obvious to one of ordinary skill in the art at the time the present invention was made. In contrast, Johnson discloses loading a reinforcing material, including a honeycomb or web shaped material, *into a mold*, but does not teach or suggest providing a *mold* including crisscrossing slots in the rigid body. *Johnson*, col. 5, lines 24-28. Khan does not satisfy the deficiencies of Johnson in this regard.

Instead, Khan teaches a lower mold press unit 14 including a lower mold part 50 having a “generally flat rectangular configuration.” *Khan*, col. 7, lines 37-50. Although, Khan teaches that the lower mold part 50 may at its upper surface have a recessed mold cavity 52 for defining a product profile, Khan does not teach or suggest “providing an open face mold... including crisscrossing slots in the rigid body.” *Id.*

In addition, Johnson and Khan do not teach or suggest a method for making cushioning articles including, *inter alia*, “**utilizing a pumping source to deposit thermoplastic material into the injection head, and distributing the thermoplastic material through the distribution channels of the injection head, out of at least one exit port of the injection head, into at least one of the slots in the screed mold**” as recited in amended independent claim 16, and this difference between claim 16 and the prior art references would not have been obvious to one of ordinary skill in the art at the time the present invention was made. As discussed hereinabove Johnson and Khan, separately or in combination, fail to teach or suggest an injection head and therefore, fail to teach or suggest depositing a thermoplastic material “*into the injection head*” and “distributing the thermoplastic material...*out of at least one exit port on the injection head, into the slots in the mold.*”

In addition, Johnson does not teach or suggest “distributing the thermoplastic material...*into the slots* in the mold” because, as discussed hereinabove, Johnson does not teach or suggest crisscrossing slots. Khan does not satisfy the deficiencies of Johnson in this regard.

Furthermore, Johnson and Khan do not teach or suggest a method for making cushioning articles including, *inter alia*, “***causing the mold and the injection head to move relative to each other as the thermoplastic material is deposited into the slots***” as recited in amended independent claim 16, and this difference between claim 16 and the prior art references would not have been obvious to one of ordinary skill in the art at the time the present invention was made. Each of Johnson and Khan, do not teach or suggest an injection head but, at best, teach channels for distributing material *within* the mold. Consequently, Johnson and Khan necessarily do not teach or suggest “causing the mold and the injection head *to move relative to each other* as the thermoplastic material is deposited into the slots in the mold.”

At least for the reasons set forth above, Applicant asserts that amended independent claim 16 would not have been obvious to a person of ordinary skill in the art at the time the invention was made considering Johnson in view of Khan, and requests that the Examiner enter the current amendments to claim 16 and withdraw the rejection of independent claim 1 under 35 U.S.C. § 103(a).

Furthermore, the nonobviousness of independent claim 16 precludes a rejection of claims 17 through 30, which depend therefrom, because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, Applicant requests that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to claims 17 through 30, in addition to the rejection to independent claim 16.

ENTRY OF AMENDMENTS

The amendments to claims 1 through 30 above should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add any new matter to the application.

CONCLUSION

Claims 1 through 30 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,



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